

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A system for controlling ~~an axial~~ a movement of an article, the system comprising:

- a support stage assembly; [[and]]
- a spring suspension arrangement mounted on said support stage assembly and comprising first and second assemblies arranged in a coaxial relationship with respect to the axis of the article movement, and one inside the other, the first assembly being attached to said support stage assembly and the second assembly serving for supporting an article-carrying member and being driven for a movement along said axis of the article movement with respect to the first assembly, the outer one of the first and second assemblies being configured to define two spaced-apart parallel planes perpendicular to said axis of the article movement, said first and second assemblies being attached to each other by first and second membrane members arranged in a spaced-apart parallel relationship along said axis of the article movement; and
- a motor operable for rotating said support stage assembly around said axis, said motor being located inside the inner one of said first and second assemblies.

2. (Original) The system of claim 1, comprising a drive assembly associated with said first assembly and operable to provide said movement thereof along said axis.

3. (Original) The system of claim 1, wherein said outer assembly is attached to the support stage assembly, and said inner assembly is driven for movement along said axis.

4. (Cancelled)

5. (Previously Presented) The system of claim 1, wherein said outer assembly is composed of at least three spaced-apart pin members kept at a fixed position with respect to one another, and said inner assembly is composed of at least one pin member.

6. (Previously Presented) The system of claim 5, wherein an arrangement of said at least three fixed members of the outer assembly defines a regular polygon, and the pin member of the inner assembly is located substantially at the center of said polygon.

7. (Previously Presented) The system of claim 1, wherein the outer and inner assemblies have the same height.

8. (Original) The system of claim 1, wherein said outer and inner assemblies are configured as cylinders or prisms.

9. (Previously Presented) The system of claim 8, wherein the inner assembly at its top and bottom portions is attached to the top and bottom portions of the outer assembly by said first and second membrane members, respectively.

10. (Previously Presented) The system of claim 9, wherein said membrane members have annular geometry.

11. (Previously Presented) The system of claim 9, wherein said membrane members are clamped to the opposite sides of each of the outer and inner assemblies via clamping rings.

12. (Original) The system of claim 8, wherein said inner assembly is driven for said movement with respect to the outer assembly, said outer assembly being attached to the support stage assembly.

13. (Cancelled)

14. (Original) The system of claim 1, comprising the article-carrying member mounted on the second assembly for rotation with respect to said second assembly, the system being thereby operable as a Z-Theta-system.

15. (Original) The system of claim 1, wherein said support stage assembly is driven for movement in a plane perpendicular to said axis.

16. (Original) The system of claim 14, wherein said support stage assembly is driven for movement in a plane perpendicular to the Z-axis, the system being thereby operable as a Z-R-Theta-system.

17. (Previously Presented) The system of claim 16 for use in transfer and positioning of a disk article with respect to said axis, wherein the support stage assembly is movable along a perpendicular axis for a distance of at least a radius of the article.

18. (Original) The system of claim 1, wherein the article-carrying member is mounted on a central axis of said second assembly by means of a pair of spherical washers facing each other by their male and female surfaces, respectively, thereby enabling precise positioning of the article-carrying member in a plane perpendicular to said axis.

19. (Previously Presented) The system of claim 2, wherein said drive assembly comprises a mechanical pair formed by a roller bearing mounted on a tapered surface of a wedge element; and a motor operable for moving the wedge element along an axis perpendicular to said axis.

20. (Currently Amended) A system for controlling movement of an article along ~~at least a~~ vertical axis and rotational movement of the article, the system comprising:

- a support stage assembly; and
- a spring suspension arrangement mounted on said support stage assembly and comprising first and second vertically oriented cylindrical assemblies arranged in a coaxial relationship one inside the other, the first assembly being attached to said support stage assembly and the second assembly serving for supporting an article-carrying member and being driven for movement along the vertical axis with respect to the first assembly, the inner cylindrical assembly at its top and bottom being attached to the top and bottom of the outer cylindrical assembly by, respectively, first and second membrane members thereby arranged in a spaced-apart parallel relationship along the vertical axis, and
-a motor operable for rotating the support stage assembly, said motor being located inside said inner assembly.

21. (Original) The system of claim 20, comprising a drive assembly associated with said second cylindrical assembly and operable to provide said movement thereof along the vertical axis.

22. (Original) The system of claim 20, wherein said support stage assembly is driven for movement along at least one horizontal axis.

23. (Original) The system of claim 20, comprising the article-carrying member mounted on said second cylindrical assembly and driven for rotation with respect to said first cylindrical assembly.

24. (Currently Amended) A system for controlling movement of an article along at least a vertical axis, the system comprising:

- a support stage assembly;
- a spring suspension arrangement mounted on said support stage assembly and comprising first and second vertically oriented cylindrical assemblies arranged in a coaxial relationship one inside the other, the outer cylindrical assembly being attached to said support stage assembly and the inner cylindrical assembly serving for supporting an article-carrying member and being driven for movement along the vertical axis with respect to the outer assembly, the inner cylindrical assembly at its top and bottom being attached to the top and bottom of the outer cylindrical assembly by, respectively, first and second membrane members being thereby arranged in a spaced-apart parallel relationship along the vertical axis; [[and]]
- a drive assembly associated with said inner cylindrical assembly and operable to provide said vertical movement thereof; and
- a motor operable for rotating the support stage assembly, said motor being located inside said inner cylindrical assembly.

25. (Currently Amended) An R-Theta-Z system for controlling movement of an article along the Z-axis and in a horizontal plane, the system comprising:

- a support stage assembly driven for movement along a horizontal axis; and
- a spring suspension arrangement mounted on said support stage assembly and comprising first and second vertically oriented cylindrical assemblies arranged in a coaxial relationship one inside the other, the first assembly being attached to said support stage assembly, and the second assembly serving for supporting an article-carrying member and being driven for movement along the vertical axis with respect to the first assembly, said article-carrying member being driven for rotation in the horizontal plane, the inner cylindrical assembly at its top and bottom being attached to the top and bottom of the outer cylindrical assembly by, respectively, first and second membrane members thereby arranged in a spaced-apart parallel relationship along the vertical axis; and
- a motor operable for rotating the support stage assembly in the horizontal plane, said motor being located inside said inner assembly.

26. (Currently Amended) An X-Y-Theta-Z system for controlling movement of an article along the Z-axis and in the horizontal X-Y-plane, the system comprising:

- a support stage assembly driven for movement along X-and Y-axes; and
- a spring suspension arrangement mounted on said support stage assembly and comprising first and second vertically oriented cylindrical assemblies arranged in a coaxial relationship one inside the other, the first assembly being attached to said support stage assembly, and the

second assembly serving for supporting an article-carrying member and being driven for movement along the vertical axis with respect to the first assembly, said article-carrying member being driven for rotation in the horizontal plane, the inner cylindrical assembly at its top and bottom being attached to the top and bottom of the outer cylindrical assembly by, respectively, first and second membrane members thereby arranged in a spaced-apart parallel relationship along the vertical axis; and

-a motor operable for rotating the support stage assembly in the horizontal X-Y-plane, said motor being located inside said inner assembly.

5